

WHAT IS CLAIMED IS:

1. A method of estimating toner consumption of a input digital image when printed, the digital image comprised of an array of pixels and wherein each pixel is
5 assigned a digital value representing marking information, the method comprising the steps of:

identifying each pixel as background pixels or foreground pixels;

adding the digital values of foreground pixels together; and,

estimating toner usage based on the sum of the added values.

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2. A method in accordance with claim 1, wherein the digital image is a binary image.

3. A method in accordance with claim 1, wherein the digital image is a multi-bit
15 image.

4. A method of estimating toner consumption an input digital image when printed, the digital image comprised of an array of pixels and wherein each pixel is assigned a digital value representing marking information, the method comprising the
20 steps of:

defining each pixel as background pixels or foreground pixels comprised of interior pixels and edge pixel;

reassigning the digital value of one or more edge pixels or interior pixels independently;

adding the digital values of foreground pixels together; and,

estimating toner usage based on the sum of the added values.

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5. A method in accordance with claim 4, wherein the digital image is a binary image.

6. A method in accordance with claim 4, wherein the digital image is a multi-bit
10 image.

7. A method of printing an image comprising the steps of:

converting the image into a digital bitmap comprised of an array of pixels wherein each pixel is assigned a digital value representing marking information;

15 identifying each pixel as background pixels or foreground pixels;

adding the digital values of foreground pixels together; and,

estimating toner usage based on the sum of the added values.

8. A method in accordance with claim 7, wherein the digital image is a binary
20 image.

9. A method in accordance with claim 7, wherein the digital image is a multi-bit image.

10. An apparatus for altering the appearance of an input digital image when printed, the digital image comprised of an array of pixels and wherein each pixel is
5 assigned a digital value representing marking information, the apparatus comprising:

a rendering circuit for identifying each pixel as background pixels or foreground pixels;

adding the digital values of foreground pixels together; and,

estimating toner usage based on the sum of the added values.

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11. An apparatus in accordance with claim 10, wherein the digital image is a binary image.

12. An apparatus in accordance with claim 10, wherein the digital image is a
15 multi-bit image.

13. An apparatus for printing an image comprising:

a raster image processor for converting the image into a digital bitmap comprised of an array of pixels wherein each pixel is assigned a digital value
20 representing marking information;

a rendering circuit for identifying each pixel as background pixels or foreground pixels;

adding the digital values of foreground pixels together; and,

estimating toner usage based on the sum of the added values.

14. An apparatus for printing an image comprising:

5 a raster image processor for converting the image into a digital bitmap
comprised of an array of pixels wherein each pixel is assigned a digital value
representing marking information;

a rendering circuit for receiving the digital bitmap from the raster image
processor for:

identifying each pixel as background pixels or foreground pixels;

10 reassigning the digital value of one or more edge pixels or interior pixels
independently;

adding the digital values of foreground pixels after reassigning; and,

estimating toner usage based on the sum of the added values.

15 15. The apparatus of claim 14, further comprising a writer interface which
receives the digital pixel values and facilitates exposure of a latent image on an exposure
medium.